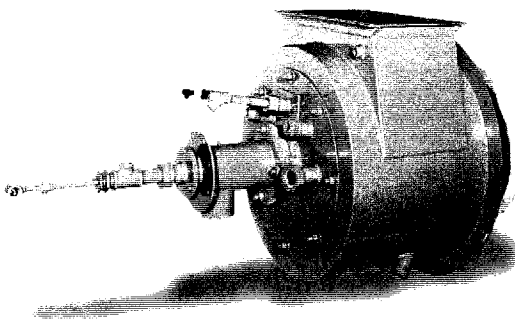


Application brief

Eclipse Product: Low NOx Vortometric Burner
Submitted by: Dan McCullough
Application: High Pressure Boiler – 1200 PSI

Description: GTS manufactures thermal fluid heaters and very high pressure boilers. They asked us if we could supply a low NOx burner to fire natural gas or #2 oil for a NUK boiler application. The emissions required 60 PPM NOx on natural gas and 100 PPM on oil. Combustion air was to be supplied at 380° F. After discussions with the Eclipse engineering department, it was decided to use a 14V burner with a 12V gas and oil gun. It was further decided that flue gas recirculation would be required to meet the emissions specification. The system as provided actually exceeded the customer's requirements. The measured emissions (by the OEM) were 25 PPM NOx on natural gas. Oil readings were not taken at this time. This job was sold in September of 1997 and started up July of 1999. The end user is Archer, Daniels, Midland Company (ADM). In January of 2002, GTS was asked to supply another NUK boiler "identical" to the one purchased in 1997. We recently entered an order for another system (February 2002). The end user is very pleased with the performance. The order included the 14V burner and gas, oil, and atomizing air trains. Eclipse will also provide start up.



Eclipse Vortometric Burner